

Aktivitas Antioksidan, Total Flavonoid, dan Daya Terima Minuman Serai, Kayu Manis, Madu Sebagai Minuman Antihipertensi

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ABSTRAK

Latar Belakang: Penderita hipertensi memerlukan pengendalian stres oksidatif dengan cara mengonsumsi pangan sumber antioksidan. Pemberian minuman berbasis bahan tinggi antioksidan seperti serai, kayu manis, dan madu dapat dijadikan alternatif minuman fungsional yang bermanfaat untuk perawatan hipertensi.

Tujuan: Penelitian ini bertujuan untuk mengetahui aktivitas antioksidan, total flavonoid, daya terima, dan formulasi terbaik minuman serai, kayu manis, dan madu.

Metode: Penelitian eksperimental dengan Rancangan Acak Lengkap dengan variasi perbandingan serai : kayu manis, yaitu F0 (100%:0%), F1 (75%:25%), F2 (50%:50%), dan F3 (25%:75%) serta masing-masing ditambahkan madu 15 gram. Hasil uji aktivitas antioksidan dan flavonoid dianalisis dengan *One Way ANOVA* dengan uji lanjutan *Duncan*, serta uji hedonik dianalisis dengan *Kruskal-Wallis* dengan uji lanjutan *Mann-Whitney*.

Hasil: Terdapat perbedaan yang signifikan perlakuan minuman serai, kayu manis, dan madu terhadap aktivitas antioksidan, total flavonoid, warna, rasa, dan aroma ($p < 0,05$), namun tidak terdapat perbedaan yang signifikan terhadap kekentalan minuman ($p > 0,05$). Perlakuan minuman F2 merupakan formulasi terbaik dengan karakteristik aktivitas antioksidan rata-rata $166519 \pm 1108,46$ ppm, flavonoid $0,0617 \pm 0,004$ mgQE/g, serta skor kesukaan terhadap warna, rasa, aroma, dan kekentalan masing-masing sebesar 3,98 (suka), 3,4 (agak suka), 3,54 (suka), dan 3,48 (agak suka).

Simpulan: Formulasi minuman serai, kayu manis, dan madu memberikan perbedaan signifikan terhadap aktivitas antioksidan, total flavonoid, warna, aroma, dan rasa minuman dengan formulasi terbaik terdapat pada perlakuan F2.

Kata Kunci: serai, kayu manis, madu kelengkeng, minuman antihipertensi

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Antioxidant Activity, Total Flavonoids, and Acceptability of Lemongrass, Cinnamon, Honey as Antihypertensive Drink

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ABSTRACT

Background: People with hypertension need to control oxidative stress by consuming food sources rich in antioxidants. Functional drinks made with ingredients high in antioxidants such as lemongrass, cinnamon, and honey can be used as an alternative for hypertension treatment.

Objective: This study aims to determine antioxidant activity, total flavonoids, acceptability, and best formulation of lemongrass, cinnamon, and honey drink.

Methods: An experimental study with a Completely Randomized Design with variations in the ratio of lemongrass : cinnamon, namely F0 (100%:0%), F1 (75%:25%), F2 (50%:50%), and F3 (25%:75%) each added 15 grams of honey. Results of antioxidant activity and total flavonoids were analyzed with One Way ANOVA and Duncan test, while hedonic test was analyzed with Kruskal-Wallis and Mann-Whitney test.

Results: There were significant differences ($p < 0,05$) in the treatment of lemongrass, cinnamon, and honey on antioxidant activity, total flavonoids, color, taste, and aroma but there was no significant difference ($p > 0,05$) on drink's viscosity. Formulation F2 was the best formula with antioxidant activity of $166519 \pm 1108,46$ ppm, flavonoids $0,0617 \pm 0,004$ mgQE/g, and favorability scores for color, taste, aroma, and viscosity of 3.98 (like), 3.4 (somewhat like), 3.54 (like), and 3.48 (somewhat like) respectively.

Conclusion: Formulation of lemongrass, cinnamon, and honey drink provides significant differences to antioxidant activity, total flavonoids, color, aroma, and taste of the drink with the best formulation found in F2 treatment.

Keywords: lemongrass, cinnamon, longan honey, antihypertensive drink

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